METHOD FOR ARRAYING LOCAL MUTUAL CONNECTION LINE INSIDE LOGIC ARRAY BLOCK AND PROGRAMMABLE LOGIC CIRCUIT

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Abstract of **JP10233676**

PROBLEM TO BE SOLVED: To increase the number of wire segments utilizable for routing inside a logic array block(LAB) and to house many logic elements(LEs) inside the LAB in the form having excellent area efficiency by using a hierarchical mutual connection architecture among the LEs, among the LABs and among global mutual connections. SOLUTION: The LAB 100 is provided with the 16 pieces of the LEs 102 and the local mutual connection lines of two different types. The local mutual connection lines of the type indicated as full length(FL) local lines 104 are extended over the entire length of the LAB 100 and connected to all the 16 pieces of the LEs 102. A second type indicated as a half length(HL) local line 106 is divided into two segments and the respective segments are extended over the length of the half of the LAB 100. One output line 108 of each of the 16 pieces of the LEs 102 is connected to one of the four FL local lines 104.